Garden Notes

Northwest Horticultural Society
Winter 1993

Sow Now, Reap Later

by Ilse Burch

Gardeners are famous for the zeal they display in hunting down new plants. Some gardeners import them from other countries, such as England. Many of us cannot afford to import our plants, and sometimes we overlook the possibilities of home propagation. We can expand our gardening horizons with propagation by seed.

Seed propagation is something everyone who gardens can use to enrich his/her plantings - annuals, herbs, perennials, rare trees, alpines - the sky is the limit. If you are successful with a particular species, you can use it to enrich your garden through trading for other plants.

Sources for Seeds

The sources for seed are tremendous and varied. There are a lot of commercial seed houses such as Chiltern (my favorite English source), Park, Burpee, etc.* Seed costs vary, but usually the cost of the seed packet isn't greater than the cost of one rooted plant. Another wonderful source is the seed exchanges offered by the garden societies. NHS has a seed exchange. Seed is donated by members and is available to members. My greatest hope is that some of you who read this article will grow some wonderful plants, then collect and donate the seed to the Seed Exchange. All gardening societies are largely volunteer organizations, and rely on you and me. I think of it as my "duty" to return something.

If you desire to join societies and participate in seed exchanges, you will need a copy of *The Bernard Harkness Seedlist Handbook* (by Mabel G. Harkness; Deborah D'Angelo. 4th Edition. Timber Press, 1986). It is indispensable because you may have difficulty finding information elsewhere on plants listed in seed exchanges. The *Handbook* tells you height, color, and country of origin. You will need to know these details to grow the plant and place it in your garden.

A comment about Latin names. Latin names are often unpopular, because they can be difficult to pronounce or hard to remember. Unfortunately, without the Latin names, it is as if you only learned people's first names and then wanted to look up telephone numbers! You simply must learn the Latin names in order to talk to other gardeners.

SEEDS

This issue focuses on "Seeds". It includes reference to many helpful books, offers encouragement from NHS Seed Exchange organizers Marge Baird and Sylvia Duryee, and presents information with which you can commence or continue your adventure into the wonderful world of growing-from-seed.

> *"He who sees things grow from the beginning will have the best view of them."*
> - Aristotle.

Sowing

Once you have the seed you want, you need to know what to do with it. Most commercial seed catalogs provide information about temperatures needed, time to germinate, etc. I like to plant most of my alpine and perennial seeds in January and February. My annuals are planted a bit later, perhaps March or April. It is always a mistake to sow annuals or tender perennials too early. Too much warmth and not enough light causes plants to become "leggy" and prone to diseases. Perennials, trees, and shrubs are easy to start. They usually do not require special treatment. I just plant the seed when I receive it and put it outside in a protected place (we will discuss this later). If the plant is from a temperate climate it is normally used to having a bit of cold weather before germinating. In fact, it may require cold weather. If you don't know what to do with a seed, use your *Handbook* or other sources to determine what climate the plant is adapted to, then duplicate it as best you can.

The "soil" you use should be a good commercial soil-less mix, such as Cole's Redi-earth or Fison's Sunshine Mix. There are many mixes available, and they are not particularly expensive. If you want to mix your own soil, that's okay, but be sure to sterilize it by heating so that it doesn't contain bacteria and fungi which are omnipresent in garden soil. You can add perlite, grit, etc. to increase drainage. One potential drawback to most soil-less mixes is that they usually contain lime. If you grow rhododendrons or other acid-loving plants you will probably want to prepare your own mix from peat, sand, perlite or pumice. Soils are a matter much-argued-about in the gardening world, and some people will do things

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Sow Now, Reap Later

differently and get good results. With a soil-less mix, it is very important to control the watering. Too much water will make the pot soggy and cause the seedlings to rot.

Pots & Soils

I like to use 4 to 4 ½ inch hard plastic square pots for seed growing. I sterilize them with a 1:15 or 1:20 bleach (Clorox) solution which I reuse until it is useless. Using chlorine is hard on the environment. Put some hand dishwashing detergent into the solution, and soak washed pots in it for 30 minutes. I like to wash my pots in large batches in the fall so that they are ready when the seed arrives. Be sure your pots have good drainage holes and don't put crockery, pebbles, or anything else in them to create better drainage - studies show that it actually impairs drainage when this is done.

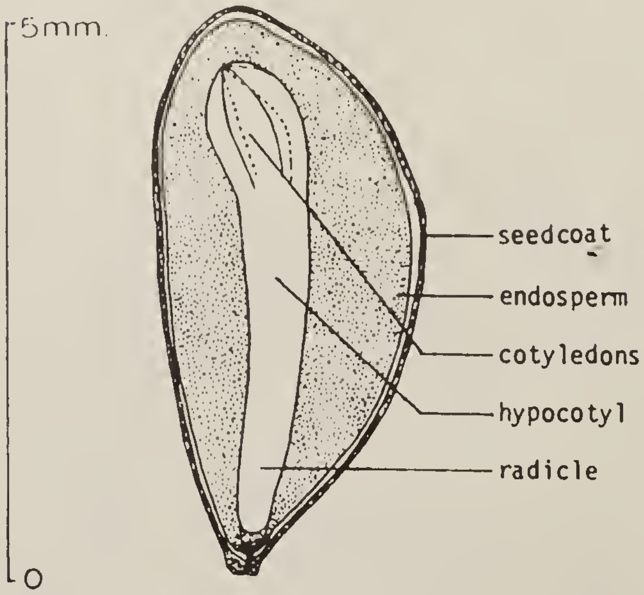
To sow the seeds, fill the pot with your soil mix and tamp it down gently. It is very important not to squash the air out of the soil. The surface should be level and perhaps ½ inch below the top of the pot. When you have the top level, take your seed and determine how large it is. If the seeds are large, I place them about ½ to ¼ inch apart and cover them with soil 1 ½ times their diameter. On top of that I put a layer of grit (the kind chickens like). The grit reduces liverwort growth, doesn't crust, and holds in moisture.

Small seeds should be sown as evenly as possible and not too thickly (seedlings will be crowded) or thinly (too few seedlings), but if you have to go one way or the other, tend toward too thinly. Omit the "soil" covering on small seeds and just cover with a fine layer of grit or clean sand. Once I got some gentian seed that I doubted would grow well, so I sowed it very thickly in a 4 ½ inch pot. Every seed germinated! It took me 3 days to get them all apart - all 500 of them. And they lived.

Tiny, dust-like seeds are hard to sow well. Many authors recommend mixing the seed with clean, fine white or "silver" sand. I usually just sow them thinly and then cover with them with the very finest layer of grit or clean sand. Even the seeds that require light to germinate, e.g. *Primula*, do well with a little sand or grit on top.

Caring and Nurturing

What you do with the planted pot depends upon what conditions the plant would naturally encounter in its native climate. I generally put my perennials outside where they will get indirect light and where they won't get rained on. Rain could wash them out of the pot. Rain also carries the spores of algae, liverwort, etc. Often I put loose plastic over the pots to keep the rain off, and then I check them periodically - maybe weekly in the winter, and daily or even more often when things warm up. To me it is still a magical sight when the seeds all germinate at once one spring day (how do they know?). If they are annuals which are tender, they belong on your window sill or in a heated greenhouse or coldframe. Watch seed pots for slugs and earwigs - they both do a lot of damage and are nocturnal. Go out with a flashlight on a warm night to check for these pests. Occasional fertilizing with a weak balanced fertilizer with micro-nutrients will make your seedlings stronger. If they yellow, usually they are getting too much water, or need an acid soil. In this case, a good acid fertilizer will help.



Cross section of a seed of Brewer Spruce *(Picea breweriana).*

•Diagram excerpted with permission granted by Timber Press from the book *Collecting, Processing and Germinating Seeds of Wildland Plants* by James A. Young and Cheryl G, Young, ©1986, available in the Miller Library.

Transplanting

People develop their own systems for transplanting from the seedling pot to individual pots. There are two points that I feel are very important. The first is to take every measure to keep the seedlings from wilting. Use shade, mist, or work on a cloudy day. The second is to be sure the soil the seedlings are growing in is almost dry when you start to break them apart. If the soil is wet, you cannot pull the seedlings apart without damaging their roots. Intuitively this would seem to be incorrect, but it works. The 500 gentian seedlings were transplanted in this fashion. It is important to transplant into a moist medium, and to water gently after transplanting to "seat" the soil around the roots. Then keep the pots shaded for a few days before moving them slowly out into the sun.

A Wise Investment in Your Garden

Fear of failure should not stop you from planting seeds - for every pot that doesn't germinate, you will probably have two that do. Start fairly small and don't worry when a pot does poorly - it may not be your fault. Keep notes on both successes and failures. The next year a slight modification in your technique may bring forth a profusion of plants from foreign lands.

*Chiltern Seeds Company
Bortree Stile, Ulverston
Cumbria, England LA127PB

Park Seed Company
Cokesbury Road
Greenwood, SC 29647

W. Atlee Burpee Company
300 Park Avenue
Warminster, PA 18947

Ilse Burch lives and gardens in Issaquah. She volunteers at the Patricia Calvert Greenhouse in the Washington Park Arboretum in Seattle.

Seed Exchange
1993

Shortly after you have installed your 1993 calendar, you will receive in the mail the new NHS Seed Exchange List to inspire visions of springtime and to brighten the winter's mental landscape. This seed list is the result of countless hours of faithful work by the NHS Seed Exchange Committee organized by Marge Baird and Sylvia Duryee (please see articles "Seeds for Thought: Conversations with Marge Baird and Sylvia Duryee", pages 4-5).

In addition to the inspirational list of seeds, the Exchange offers seed planting guides; these pamphlets may be ordered for a very nominal price and include "How to Raise Alpines From Seed," "Growing Bulbs From Seed," and "Germination Information."

Perhaps you would like a sneak preview of some upcoming seed attractions...? You may anticipate availability of the following:

Asarum europaeum **(from Europe) relative of the native ginger, evergreen, glossy leaves;** *Asarum hartwegii* **(from the Siskiyous of Oregon and California) relative of the native ginger, leaves mottled with white and long-tailed greenish-purple flowers;** *Stewartia koreana, s. monadelpha, s. pseudocamellia,* **and** *s. serrata.* **White flowers in June, gorgeous red fall color, interesting bark; Hosta species-popular shade lovers, easy from seed;** *Tropaeolum* **(from Chile), curious little climbing nasturtium with vermillion red flowers;** *Lapeirousia,* **South African member of the iris family, a charmer 8-10" high with bright pink or white flowers; plant right in ground or planter where they are to grow.**

These represent but a small portion of the many seeds that will be available for you in the new year. (*Last year over 400 varieties of seed were offered*).

Keep a lookout for the new List!

Chairpersons of the Ground Covers Department, Mary and George Davis, reflect the Sale's happy mood.

1992 Plant Sale

A Grand Success

Thanks to Volunteers

The twentieth annual NHS Plant Sale was a wonderful collage: vibrant colors and magnificient textures of plants intermixed with happy plant lovers and a landscape dotted with big white umbrellas, useful for both sun and rain, and there was both. It was a plant sale "whose time had come" in the words of Doug Bayley, Northwest landscape designer. Over the summer months other plant sales had been cancelled due to the drought prevailing in the region. Come fall, however, gardeners' thoughts turned to the probability of rainfall and the possibility of planting once again.

Volunteers

The backbone of the plant sale is of course the spirited work of over one hundred volunteers. They not only make the sale superb, but also enrich our fund of knowledge. NHS is fortunate to have friends willing to share their expertise and expresses its thanks in great measure for their participation again this year. Special thanks and praise also go to this year's Chairpersons: Eve Mauger, Grace Smith, and Shaun McMahon.

New Features

The twenty-fifth anniversary of NHS was celebrated at a gala party honoring Founders and Plant Sale growers. Thanks to the fine work of Chairperson Iris Wagner, party-goers enjoyed a festively-decorated courtyard, gourmet food, and the music of a woodwind quartet. A lively auction of rare plants as well as art, including original artwork by Kelly Wright commissioned this year for the Plant Sale poster, was a big success. Dr. Arthur Kruckeberg, Professor Emeritus of Botany at the University of Washington, was auctioneer.

Another new Plant Sale offering this year was a lecture series. The well-attended, informal lectures took place throughout the two days, given by experts on topics ranging from "Olympic Wildflowers" to "Native-Plants in the Garden and Their Exotic Companions."

NHS is already looking forward to its 1993 Plant Sale, again a time for offering exceptional and rare plants and sharing horticultural knowledge.

Seeds for Thought:

Conversations with Marge Baird ...

by Prudence Hammett

To those of us who seek instant gratification with the purchase of an established plant from our local nursery, the prospect of starting the same plant from seed is somewhat daunting. However, if one were fortunate enough to spend an hour in the company of Marge Baird as I had a chance to do recently, one would walk away with an enhanced interest and confidence in trying seed germination.

As "Friends of the Arboretum" and, later, members of the Northwest Horticultural Society, Marge and friends Sallie Allen, Mary Kennedy, and Sylvia Duryee started a humble seed exchange in the basement of the Baird's home. Developing contacts with personal friends from the eastern United States to Tasmania to New Zealand, or with similarly afflicted seed addicts at conventions, this group of women has collected, sorted, labeled, dissected, germinated, grown, and–through the Northwest Horticultural Society Seed Exchange–distributed a diversified list of seeds from the familiar to the exotic. Marge allowed that any seed that is sent to the NHS Seed Exchange that proves to be viable is put on the list to be sold.

She suggests that anyone interested in collecting seeds, especially in the wild, would be wise to get a piece of the parent plant if unsure of the identity, record where the plant was growing (mountains, bog, desert), type of soil it was growing in, and even to note what other plants were growing around it. Seeds should be picked before completely dry so that wind, weather, or animals do not prematurely scatter them, and then the seeds should be stored in a box. Collected seeds can be mailed in thick envelopes - seed capsules (pods) thus are sent without being broken apart. Marge and her compatriots have a coveted collection of dental tools specifically used for removing seeds from their capsules.

Marge cuts a seed in half for viewing under her microscope to see if seeds sent to the group are viable. Brown dust inside is a sure sign that the seed is not good for germination, whereas a seed with a solid, hard center like a peanut is placed on the list for sale.

Mrs. Baird admitted that some plants are hard to germinate, such as some maples and cyclamen, and that seeds of plants such as platycodon or balloon flower or helebores need to go right into the ground. After determining that a seed is viable and planting it in its appropriate soil composition, the most important ingredient for its success is to prevent the potted seed from being too wet or too dry. Marge's collection of germinating seeds are potted in plastic pots and sunk into the ground up to the top of the pot, surrounded by shavings, outside in the open to break dormancy. Marge claims that the only other prerequisite to fun and successful germination is patience, especially with plants such as species peonies (*Peony obovata "alba"* white) in which only a few black seeds in the pod are viable (orange ones are always non-viable); and when placed in the soil as soon as they are ripe, will take as long as two years to show any signs of germination.

It is certainly because of keen interest in the intricacies and rewards of seed germination that Marge Baird has helped to develop the Northwest Horticultural Society Seed Exchange, but as I drove away from my meeting with her so much more motivated and ever so much wiser, and with the gift of a pot containing a rare fern lovingly and patiently grown from spore, I realized that the great joy for her is in the sharing.

Prudence Hammett is a member of the NHS Board of Directors, an artist, and interior designer.

Books for Holiday Gift Giving

The Miller Library has a new annotated list of great books and magazines for holiday gift giving. Call 543-8616 for this list or come by the Library to peruse these selections at your leisure.

and Sylvia Duryee

by Emily Moore

EM: When and by whom was the NHS Seed Exchange initiated?

SD: The idea was brought to the NHS Board in the late seventies by Sallie Allen who then launched the project with Mary Kennedy and Marion Krohn. Later, Marge Baird and I, who had been working with Mary, took it on, with the help of a small group of dedicated volunteers.

EM: How did you develop your contacts?

SD: Through notices in bulletins of horticultural societies such as the American Rock Garden Society, the Scottish R.G.S., the Alpine Society of England, also of New Zealand, the Arboretum Foundation, and others. We have contacts in Czechoslovakia and Germany who have sent seeds and spore regularly even during the "Iron Curtain" years.

EM: How many correspondents are there now?

SD: We usually receive contributions of seed and spore from about 25 donors, and orders for, on average, 80-90 customers. Donors' orders are always filled first! We welcome donations from new sources, even seed gathered in the wild from an unfamiliar plant. Seed may be sent with details as to location, site conditions, and if possible, a latent flower and leaf to facilitate identification. Package seed, after drying, in paper (not plastic) envelopes other than letter types as they do not seal properly.

EM: How many varieties of seed do you offer and what is the process you have established to handle them?

SD: Our list usually offers 450-600 varieties. First we clean the seeds, then examine them under the microscope to determine viability. We then package seeds, being careful to regulate quantity where necessary, and prepare the list of current offerings for mailing in late January or early February. This process requires twice weekly sessions all Fall plus two to three times weekly sessions from Christmas until the end of March for packaging.

EM: How many seed packets do you produce?

SD: Between 2500 and 3000 on average, depending, of course, on the quantity donated. Some seeds, which can be held over, become the "freebies" of the following year. Some surplus seeds are sent to New Zealand to be exchanged for seeds we can grow here.

EM: Tell us a little about the challenge of "growing from seed" and how we may learn the secrets of success...eventually!

SD: First, let me emphasize patience! Some seed require germination over two years, so remember where you planted each variety so as to avoid disturbing slow-to-germinate varieties such as cyclamen, hepatica, and others. One trick is to mark the area with the top ring of a one-gallon plastic pot; it can be left in place and is not unsightly. Also, don't be afraid to try, try again! Specifics for most varieties are available through the Plant List order form to assist not only the novice but the more experienced growers as well. Use the Miller Library at CUH for information on seed germination and other questions about plant propagation. We believe strongly that growing from seed is the most exciting, rewarding thing you can do. The NHS Seed Exchange list, a source of hard-to-obtain species as well as some garden standbys, is fascinating to read, and meant to inspire the recipient to new adventures in the garden!

Emily Moore is a member of the NHS Board of Directors and gardens in Tacoma.

Sylvia Duryee, a passionate advocate of growing plants from seed.

Why grow from seed?

Some principal advantages are: seeds rarely transmit diseases so resulting plants can be relied upon to be healthy; plants on the borderline of hardiness can survive best if they spend their entire life in one environment rather than being moved from a nursery; and seed is relatively inexpensive.

Seedling illustrations on pages 4 and 8 reprinted from *The New Seed Starters Handbook* by Nancy Bubel, ©1988 by Nancy Bubel. Permission granted by Rodale Press, Emmaus, Pennsylvania and by Frank Fretz, illustrator.

Growing From Seed

by Valerie Easton

Library Resources

Is there a variety of coneflower you want for the back of the border but can't find in a local nursery? Or a type of bean you've read about that has superior flavor to kinds more readily available? Or perhaps you want to cover that trellis by the back door with the most fragrant old-fashioned variety of sweet pea. Or you just want your garden filled to overflowing with a wide variety of plants, but don't want to take out a second mortgage to do it? Like so many other gardeners you'll need to turn to growing the plants you desire from seed. The books below are filled with information, opinions, and advice to help you successfully create the miracle of a living garden from seed.

Park's Success with Seeds

by Ann Reilly

Greenwood, SC: George W. Park Seed Co. Inc., 1978.

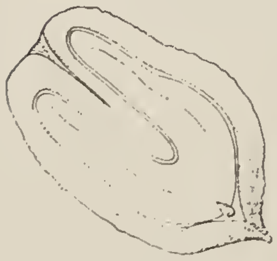
A brief section of seed growing techniques is followed by an encyclopedic listing of vegetables, flowers, trees, shrubs and houseplants to grow from seed. Each entry has photos of seedlings and plants, as well as information on landscape uses, plant habit, culture and germination instructions. Although this book is older, it is still very useful for its comprehensive but concise format.

Seeds: The Ultimate Guide to Growing Vegetables, Herbs and Flowers

by Sam Bittman

New York: Bantam Books, 1989.

Here is the inspirational factor missing in most of these guides - beautiful color photographs in a large scale format of lush gardens filled with flowers and vegetables. Why go to all the trouble of growing from seed? So you can have a garden with the variety and sheer number of plants shown in these photos. A listing of over 200 popular herbs, flowers and vegetables, includes a color photo and a sketch of the seedling, and the information needed to grow that plant from seed. One nice feature of Bittman's book is its emphasis on design, with a chapter on planning the garden and color sketches of various garden layouts, along with all the photographs.



Seeds of Woody Plants in North America

by James A. and Cheryl G. Young

Portland: Dioscorides Press, 1992.

It is wonderful to have this brand new revision and enlargement of the old United States Department of Agriculture Handbook #450, *Seeds of Woody Plants in the United States.* Reflecting the increase in knowledge about the propagation of woody plants, this volume covers twice as many genera and adds thousands of current worldwide literature citations. The format, drawings and tables are easy to use and give information, by genus, on the collection, harvesting, cleaning, storage, stratification, germination, and sowing of seed. If you wanted to collect seed from our native serviceberry (*Amelanchier alnifolia*), for instance, you'd find that its fruit ripens in July and August when it turns blue/purple, each holds 4-10 small seeds that need to be prechilled for 90 days, and can be sown in fall or spring. Each entry includes advice on seed-handling techniques and information on various studies. This is certainly the most comprehensive source of information on the seeds of woody plants, presented in a most useful format.

Sowing a Better Garden

by John Kelly.

London: Unwin Hyman Ltd., 1988.

Less of a reference manual and more of a knowledgeable and slightly opinionated discussion, this British book is written for the home gardener. John Kelly says in the forward, "I am, of course, not a seed scientist. Indeed, I am not a scientist of any kind, just a gardener whose lot it has been to sow innumerable batches of seed of all kinds of plants over a long period of my life." He goes on to give informed and encouraging advice on growing shrubs, bulbs, alpines, perennials, annuals and vegetables from seed.

Garden Flowers from Seed

by Christopher Lloyd and Graham Rice.

London: Viking, 1991.

This new book by two of England's best known plantsmen should be available soon in the United States. It is a dialogue, complete with interruptions and strong opinions, on which seed-raised flowers to grow, and how best to grow them. Most interesting are the authors numerous ideas on how to use flowers in the garden. This may be the only book on propagation from seed that you read cover-to-cover for sheer enjoyment.

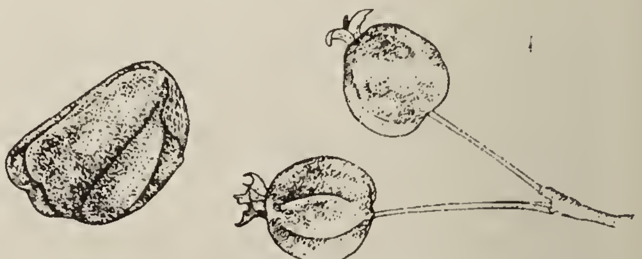
The New Seed-Starters Handbook

by Nancy Bubel.

Emmaus, PA: Rodale Press, 1988.

This is probably the most thorough book on methods and means of propagation by seed for the home gardener. With an emphasis on vegetables, great detail is given on planting medium, relative value of different kinds of containers, seed handling, transplanting seedlings, etc. Excellent for beginning gardeners, but also useful as a reference to look up specifics on a wide variety of vegetables and some flowers and other plants.

Valerie Easton is a librarian in the Elisabeth C. Miller Library at CUH.



There are hundreds of seed catalogues for your reference in the Miller Library.

It's More Than Dirt Under The Fingernails

A Professional Plant Propagator's Story

by Barbara Selemon

When I tell people that I propagate plants for Seattle's Washington Park Arboretum and Center for Urban Horticulture, most people are at once envious. I imagine they have in mind only a small picture of my actual daily activities. This article aims to fill in the details.

As Propagator, I perform four main activities–seed propagation, vegetative propagation, container nursery maintenance, and plant distribution. The decisions about which plants I grow are made in accordance with Collection Management Policy overseen by a Collections Committee chaired by the Curator, Tim Hohn. The policy outlines the genera to be developed and managed in order to fulfill the purposes of the mission of the Center for Urban Horticulture (CUH), which are education, display, research, and conservation. The criteria for acquisition are also laid out in the document.

The propagation area for the Plant Production Program is located in the Douglas Research Conservatory at CUH; the fenced area to the south of this building houses the container nursery plants. These plants are all part of the collections that eventually find their way to the grounds of either the Center for Urban Horticulture at Union Bay or to the 200-acre Washington Park Arboretum.

Plant Sources

Most of the new acquisitions are obtained through the *Index Seminum*, a worldwide seed exchange program whose members are from botanic gardens, universities, and horticultural institutions. Other sources of seed are from expeditions funded by associated institutions such as the National Arboretum or the Arnold Arboretum. Organization plays a very big role in managing the nearly 150 seed acquisitions that are received in an average year.

> *"It is still exciting to see a new seedling emerge after months of waiting..."*

Following an accessioning process, whereby each new plant or propagule group that arrives is numbered chronologically, according to date of receipt during the year (for example, #122-92 refers to the one-hundred twenty-second plant to arrive in the year 1992) a record card is made to track the seed or plant or cutting throughout its existence in the system. A literature search for information on required treatments is next conducted and provides a schedule of work procedures to best reach the desired results.

Propagation

Seeds with short-term viability are handled immediately. Others are grouped according to treatment categories such as warm or cold-moist stratification*, chemical or mechanical scarification*, or no pretreatment. I primarily use information gathered from *The Reference Manual of Woody Plant Propagation* (Dirr and Heuser, 1987) and from the revised edition of *Seeds of Woody Plants in North America* (Young and Young, 1992). Record card information from previous years' tried seeds is also valuable. For species without reference information, seeds are divided into lots and different treatments are tried on a trial-and-error basis. Seed packages are grouped according to their treatment methods and then stored in sealed plastic bags at a temperature of 38 to 41 degrees, Fahrenheit.

Stratification

In late summer the first seeds to be dealt with are those requiring a warm stratification followed by a cold-moist treatment. Treatments involving lesser and lesser time periods are then commenced so that by springtime, when the days begin to lengthen and the temperatures are warmer, all of the seeds are primed for germination.

A fungicide-treated peat moss serves as the stratification medium for cold-moist treatment. Otherwise, all seeds are sown in a fine-grain peat/vermiculite medium. This mix is amended with fine-grain silica sand for plants such as those that come from New Zealand where adequate moisture and sharp drainage are both elemental. For warm stratification, seeds are sown in the same way and then covered with a granitic grit mulch for protection against algae and moss. The flats are placed into a warm greenhouse for 3-5 months and then wrapped in plastic and placed into the cold-moist regime for the following 3-month period. The warm stratification breaks down seed coat dormancy, whereas the cold-moist stratification process breaks embryonic dormancy.

Scarification

Scarification of hard seed coats is performed by various methods. I use acid, hot water, boiling water, files, knives, or sandpaper depending upon the type of wall I'm trying to break through. All seed flats are monitored daily and hand watered as needed. There is a large calendar in my office where starting and ending dates of treatments are posted so I can track a seed group and remember to deal with it at appropriate times.

Vegetative Propagation

The task of vegetative propagation is performed mainly to fulfill a major element of our mission: conservation of plant collections that are sparsely represented, sited in a poor location, too large to move, or stressed for some other reason.

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The Time Has Come

After nearly two years of careful discussion and accounting review, the Board of Directors of NHS has voted to implement changes to the membership organization that will affect each member of the Society.

Effective immediately, there will be only four categories of membership with the following dues schedule:

	Without *Pacific Horticulture*	**With** *Pacific Horticulture*
Life		**$1,000**
Supporting		**$100**
Active	**$35**	**$50**
Nursery	**$50**	**$65**

From a recently conducted survey of our members, we discovered some members questioned their benefit from a *Pacific Horticulture* subscription and other members reported that they looked forward to their *Pacific Horticulture* subscription and considered it a valued part of their membership. We've decided to make it an optional component of the Active and Nursery member categories but included a subscription at the Life and Supporting levels.

But the changes don't stop here. For over a year the Society has been implementing office efficiencies to reduce the costs of serving our members. We purchased a computer system and associated software to manage membership records and to process text for newsletters, brochures and flyers. Soon the member mailing list will be maintained within the NHS office and the contracted mailing house services will be terminated. This will mean a significant cost savings. One of the efficiencies that will be introduced by this system will be the assurance that members receive twelve months of benefits for twelve months of dues. The system will generate timely renewal notices to insure that no membership is unintentionally ended. You are familiar with these procedures if you belong to large national organizations or associations. NHS intends to be no less professional. Other efficiences in office procedures are being implemented daily.

Furthermore, we recognize that during these times when everyone seems to be increasing costs and fees that you may feel we are just following suit. Not so! We've not changed our member fees since 1986 and yet have continually improved and expanded member benefits. For example, we added a part-time staff person to respond to member calls and to assist with management of NHS projects and activities. We looked closely at our newsletter with intent to improve its appearance, its content, and method of production to control its cost and to insure its timeliness. This issue is the first of that new look; we hope you are as pleased with it as we are. You will receive it four times per year instead of the three issues of its predecessor.

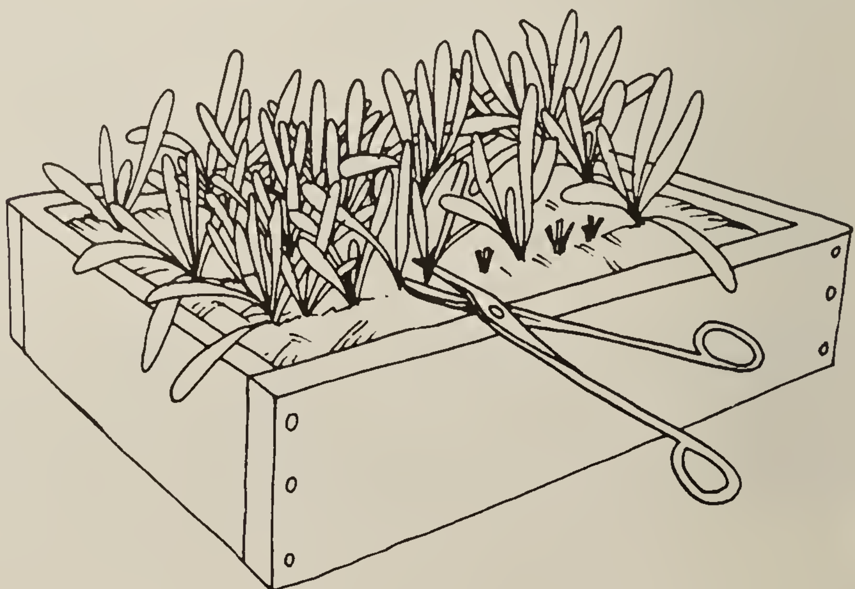
Perhaps you have taken advantage of some of your other member benefits. If you came to the recently held ***Fall Plant Sale*** you discovered an extraordinary array of plants–many rarely offered, horticultural books and gardening supplies offered by experienced, knowledgeable NHS volunteers eager to assist and willing to share their expertise. At this year's sale we inaugurated an exceptional series of lectures by experts on a wide variety of topics. There was no fee to attend the sale or these lectures.

Maybe you attended one or more of the ***NHS Lecture Series*** programs where internationally recognized leaders in horticulture, public gardening, garden design, flower arranging, and plant introduction were brought to teach, to share, to show, to encourage, but most of all to stimulate your gardening interests.

And what about the ***garden tours, Fern Sale, Seed Exchange, and exhibits***. Did you take advantage of these program opportunities? These are member benefits and they get better every single year. Some of our members, who for any number of reasons cannot take advantage of these educational benefits, enjoy being members in order to support the ***horticultural education programs of NHS***–our financial support and promotion of the ***Elisabeth C. Miller Horticultural Library*** at the University of Washington (the only one of its kind north of San Francisco and west of Chicago); our ***scholarship program for students of graduate studies*** in relevant subjects; our ***horticultural education grants program***.

These are some of the direct benefits of NHS membership. Your membership support enables us to offer them to you, linking you to a remarkable gardening education network. We hope that you will agree that your membership is a bargain-even with these rate changes-and that you will continue your support of NHS and enable us to serve you and others with the best gardening resources in the Northwest.

Richard A. Brown
Chair, Membership Committee



Mark Your Calendar

Upcoming Events

JANUARY

28, 10:30 a.m.

(Coffee at 10:00 a.m.)
NHS Lecture

Late Winter/Early Spring Interest in the Garden

Dan Hinkley, Instructor, Edmonds Community College and co-owner, Heronswood Nursery, Kingston.

Dan Hinkley's garden was featured in summer *'92 Fine Gardening*. Mr. Hinkley was a recent participant in a select panel of perennial experts who toured major east coast cities. His NHS program will feature trees, shrubs, vines, bulbs, and perennials.

$5 members & students; $10 non-members

Tickets at the door*

Information: 527-1794

28, 7:00 p.m.

Bellevue Botanical Garden slide presentation

Plants of Western Australia

Tom Kuykendall

Bellevue Botanical Garden, Shorts Visitors Center

12001 Main Street, Bellevue

Free

Information: 462-2749

FEBRUARY

11-15

Northwest Flower and Garden Show

Washington State Convention and Trade Center, Seattle

(Plan to visit the NHS Booth, #6210, on the sixth floor.)

Information: 789-5333

25, 7:30 p.m.

(Coffee at 7:00 p.m.)
NHS Lecture

What Makes a Garden Great

Allen Paterson, Director, Royal Botanic Garden, in Hamilton, Ontario.

Formerly with Chelsea Physic Garden, London, Allen Paterson speaks frequently in the U.S. (Brooklyn Botanic Garden, Berkley Botanic Garden, etc.), across Canada and is known for his engaging wit. He emphasizes the value of incorporating choice elements into your garden.

$5 members & students; $10 non-members

Tickets at the door*

Information: 527-1794

MARCH

6

Center for Urban Horticulture Symposium

Herbal Renaissance

Includes English Herb Gardens, Medicinal Herbs for the Home Garden, Propagating Herbs at Home, Landscape Solutions Using Herbs.

$45, herbal buffet lunch included.

Information/Registration: 685-8033

23, 10:30 a.m.

(coffee at 10:00 a.m.)
NHS Lecture

Golden Age of American Gardens

Mac Griswold, author and lecturer from New York City. This program encompasses the garden history of American estate gardens (1890-1940) with modern slide visits.

$5 members & students; $10 non-members

Tickets at the door*

Information: 527-1794

APRIL

17-23

Center for Urban Horticulture Tour

Desert in Bloom

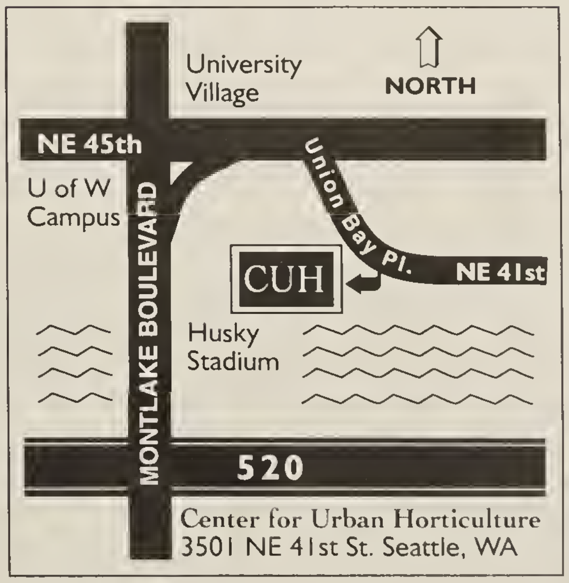
Trip to view plants and gardens of Southern Arizona.

Enrollment deadline:
March 10, 1993

Information: 685-8033

*All NHS lectures will be held in

NHS Hall,
Center for Urban Horticulture,
3501 N.E. 41st Street, Seattle.



Center for Urban Horticulture
3501 NE 41st St. Seattle, WA

Along for the ride, and early exposure to horticulture at the 1992 Plant Sale.

NHS Provides Grants For Horticultural Programs

As part of its commitment to horticultural endeavors in the Northwest, NHS provides grants to enable qualified individuals, organizations, and institutions to pursue their goals. NHS receives proposals from environmental, educational, and horticultural projects and the grants are generally awarded on an annual basis. Those interested in applying must submit the following information:

- *a two-page narrative describing the project*
- *proposed use of requested funds*
- *budget and timeline*
- *financial statement, if applicable*
- *list of board of directors and officers, if applicable*
- *contribution to horticulture in the Northwest*
- *agreement to provide NHS with a copy of completed work*
- *two letters of reference.*

The deadline for applications is February 1 for major grants. Minor grant applications will be accepted through the year.

Inquiries may be directed to the NHS Office, (206) 527-1794.

Completed applications should be mailed to:

The Northwest Horticultural Society
Isaacson Hall, University of Washington GF-15
Seattle, Washington 98195

The Elisabeth Carey Miller Scholarship in Horticulture

NHS invites applications for its annual Elisabeth Carey Miller Scholarship Award. This program is designed to help support the research and education of a student enrolled in the graduate program at the Center for Urban Horticulture at the University of Washington or in other programs directly associated with the Center, such as the College of Forest Resources and the Department of Landscape Architecture. Since 1988, NHS has awarded nine scholarships and is looking forward to supporting future students as they pursue their horticultural studies.

Applications must be received by NHS no later than April 1, 1993. Persons interested in receiving application details may call the NHS Office, 527-1794.

President's Message

The seeds sown by NHS during 1992 have produced a wonderfully varied harvest. It has been plentiful in terms of the number of members who have taken advantage of NHS-sponsored events. The free horticultural seminars during the fall Plant Lover's Plant Sale were well-attended and enjoyed by all. The first-ever, pre-plant-sale Gala and Auction were great ways for members to become better acquainted. The June Fern Festival, the Seed Exchange, and our exceptional Lecture and Tour Series have nourished the spirits, minds, and gardens of all of us.

NHS has helped others to bloom through scholarships and grants. As part of our ongoing scholarship program, we provided scholarships this year to two graduate students in Urban Horticulture at CUH; we funded an internship for a student at the Rhododendron Species Foundation; and we provided the Elisabeth C. Miller Library a grant which made possible Monday evening hours and continuance of the library's community outreach program.

As we look ahead, grow with us by enjoying our newly formatted newsletter, topically exciting and increased to quarterly. Grow with us also by becoming more involved and plan to attend all of our stimulating 1993 lectures and tours. Continue to reap the benefits of NHS and cultivate your gardening interests through your membership.

I wish you health, happiness, and a flourishing garden, and I hope to see you at our first 1993 lecture in January.

Michael Lynn

Michael Lynn

continued from page 7

A Professional Plant Propagator's Story

Timing is all important in vegetative propagation. A schedule is determined based on the best time of year to take cuttings for a particular species, again dictated by reference material. Summer is the busiest time since softwood and semi-hardwood cuttings are the predominant recommendation. Hardwood stem and root cuttings are taken in winter. I apply either Dip 'n Grow liquid hormone or an IBA talc, Hormex Nos. 3 and 8. Mist is used in summer months; a polytent and bottom heat in wintertime. This year, I have experimented with placing velcro strips with a talc hormone on the actively-growing terminals of plants that are difficult to propagate, with hopes that this method of wounding will result in a rooted specimen. Certain genera are difficult such as the evergreen Oak *(Quercus)* group and certain members of the genus *Nothofagus*, (Southern Beech). For these types, numerous trials are made in an effort to gain good results.

When small plants are large enough to fill 5" pots, they are rotated in the container nursery. They are transplanted to provide adequate root growing space, fertilized, watered, and trained until they are of plantable size. All are labeled with the accession number and are inventoried yearly. Records are maintained on all activities performed.

Usually cuttings from collections plants in the Washington Park Arboretum are sent to a nursery or affiliated botanical institution during the correct time of year, packaged and mailed for quick delivery. Excess plants are distributed to local horticultural institutions. Records on distributions are maintained so we are able to track down the sources of propagation material if our own plant fails.

Personal Reflections

Being Plant Propagator is an enjoyable job for me. There is a myriad of duties to perform as you can see, and they change seasonally. I thrive on organization and order so these aspects of the job are easy for me. It is still exciting to see a new seedling emerge after months of waiting, and I look forward to the often exotic and beautiful plants from New Zealand. I am intrigued by the variations in sizes and forms such as are found in *Sorbus* (Mountain Ash) and *Ilex* (Holly) members. I cannot fail to stress my appreciation for the volunteer staff who enable progress in the bigger propagation tasks such as the handling of diverse groups of seeds.

To those people who envy my work, my answering smile conveys "Yes, it is a rather good way to earn a living." However, many home gardeners can perform the same propagation activities. The lessons I've learned on the job carry over well to the home setting. An elaborate greenhouse is not required. Although controlled environments often improve percentages and speed up processes, learning the basics and being creative produce similar results for the venturesome. I advise people to follow the motto of the International Plant Propagators Society - "to seek and share."

* Stratification - a pregerminative treatment to break dormancy in seeds and to promote rapid uniform germination.

* Scarification - a pregerminative treatment applied to seed coats to make them permeable to water and gases.

Barbara Selemon is Plant Propagator of the Living Collections at the Center for Urban Horticulture and Washington Park Arboretum, Seattle.

NHS MEMBERSHIP IS A WONDERFUL GIFT FOR YOUR GARDENING FRIENDS...

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University of Washington GF-15
Seattle, Washington 98195

tel. 206 527-1794

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